

Remarks

The present amendment is in response to the action mailed in the above-referenced case on April 17, 2003. Claims 1-34 are presented for examination. The Examiner rejects claims 1-34 under 35 U.S.C. 103(a) as being unpatentable over Hsu (US 6,363,319) hereinafter Hsu, in view of Viswanthan et al. "Evolution of Multiprotocol Label Switching", hereinafter Viswanthan.

In response to the Examiner's rejections and statements, applicant argues that the art presented by the Examiner does not combine to provide a Prima Facie Section 103(a) case against the standing claims. Applicant's arguments below patentably distinguish applicant's claimed invention over the prior art of Hsu and Viswanthan.

The Examiner states that Hsu discloses constraint-based route selection using biased cost, as shown in fig. 1a are routers using a centralized biased cost route selector (BCRS) and shown in fig. 2 are routers using a distributed biased cost route selector (BCRS) using label edge routers (LERs) (col. 3, lines 32-38). The Examiner states that Hsu teaches a directed-graph index (col. 5, lines 25-67; col. 6, lines 1-8). The examiner notes that MPLS is known in the art for packet forwarding. The Examiner states that the Hsu reference is silent to the limitation of replacing the tag (i.e. MPLS label) of the packet with the updated tag to give an updated packet.

Applicant argues that not only does Hsu not teach replacing a tag, Hsu also fails to teach or suggest routing packets by utilizing tags of packets as claimed in applicant's invention. Hsu does not teach a normalization function, or randomizing function of tags as claimed in applicant's invention. Applicant's invention is specifically designed so the tag of each packet is accessed and updated (if needed) at each node. Only

by accessing and performing functions on the tag can packets be forwarded to the next node in the unique way taught and claimed by applicant. Applicant's tag normalizing function is used to reduce the number of bits in a packet required for routing table operations.

Further, applicant argues that Hsu is also silent as to the claimed tag randomizing function. The randomizing function is used to increase the likelihood that all routing resources are used in the network. Applicant argues that Hsu is silent as to said teaching. Hsu's cost bias function does not prioritize randomizing. Applicant argues that Hsu's system determines an entire path or route for a packet. Hsu does not have the flexibility to change the path at an intervening node by accessing tags, performing functions on them, and updating the tag as claimed.

The Examiner relies on Viswanathan to teach the ability to update labels by encoding the label in the data link area or network layer header, or encapsulating the packet with a header specifically for MPLS. Applicant argues that Viswanathan also fails to perform any functions to the tags to reduce bit length, or randomize paths used.

Applicant's invention teaches routing packets from node to node using normalizing and randomizing functions on the tags to maintain the most accurate, efficient and flexible method of forwarding packets. The prior art presented by the Examiner fails to suggest the methods as claimed by applicant in the present application.


Applicant believes the claims as argued are patentable to applicant over the references cited and applied, and therefore requests reexamination and that the case be passed quickly to issue.

If there are any extensions of time required beyond an extension specifically petitioned and paid with this response, such extensions are hereby requested. If there are any fees due beyond any fees paid by check with this response, authorization is given to deduct such fees from deposit

- 10 -

account 50-0534.

Respectfully submitted,
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